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United States Patent [19][11] **Patent Number:** **6,125,239****Homma**[45] **Date of Patent:** **Sep. 26, 2000**[54] **VIEWFINDER DEVICE ENABLING DISPLAY
OF OPTIONAL PHOTOGRAPHIC
INFORMATION**[56] **References Cited****U.S. PATENT DOCUMENTS**[75] **Inventor:** **Itaru Homma**, Tokyo, Japan

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[73] **Assignee:** **Nikon Corporation**, Tokyo, Japan[21] **Appl. No.:** **09/162,143****Primary Examiner**—Alan A. Mathews[22] **Filed:** **Sep. 29, 1998**[57] **ABSTRACT**[30] **Foreign Application Priority Data**

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G03B 13/24**[52] **U.S. Cl.** **396/296; 396/147; 396/150;
396/384; 396/386**[58] **Field of Search** 396/148, 149,
396/296, 373, 377, 378, 379, 380, 381,
384, 385, 386, 150, 152; 359/565, 566,
567

A viewfinder device that includes a screen on which an image is projected, and an eyepiece lens through which the image is viewed. An optical member passes light beams from the screen to the eyepiece lens through an information display member, and a diffraction optical element diffracts light beams in the direction of the eyepiece lens so that diffracted light beams from the information display member are superposed over the viewed image.

20 Claims, 6 Drawing Sheets